If you do not want to save your changes press <**Esc**>. The footer message at the bottom of the screen says "Parameter Addition Aborted. Hit a Key.". Press <**Enter**> to return to the EDIT PARAMETERS MENU.

Table 3-5 describes each entry in the ADD A PARAMETER dialog. Press <**F1**> for help on the entry the cursor in currently in.

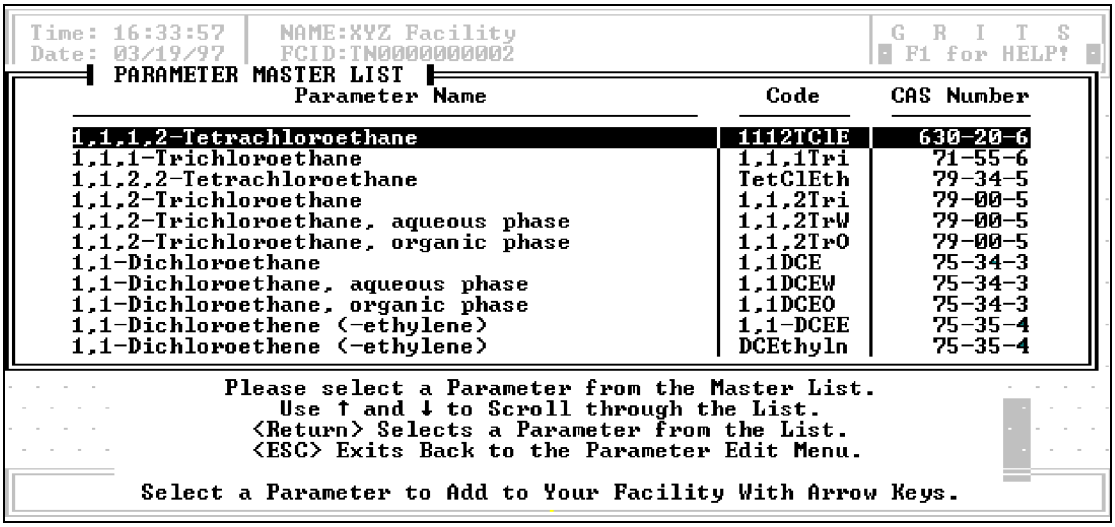


Figure 3-40. The PARAMETER MASTER LIST.

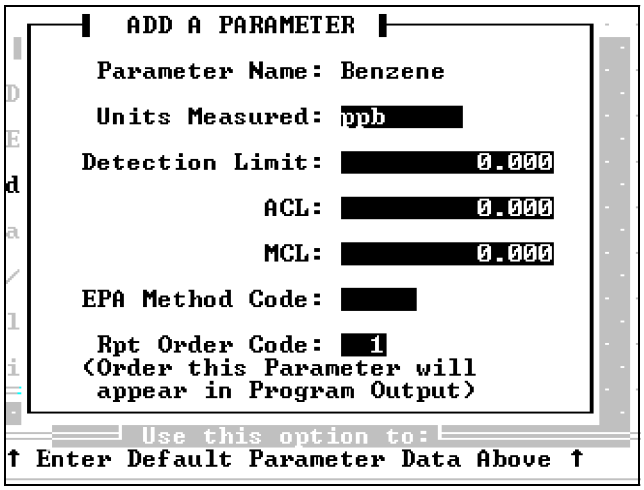


Figure 3-41. The ADD A PARAMETER dialog. In this case Benzene was selected from the PARAMETER MASTER LIST.

ADD A PARAMETER dialog entry	Description	Example

Units Measured	Enter the units that the parameter is reported in. Valid entries are:
	
	`ppb Parts per Billion`
	`ppm Parts per Million`
	`ppth Parts per Thousand`
	`ppt Parts per Trillion`
	`mg/l Milligrams per Liter`
	`mg/ml Milligrams per Milliliter`
	`mg/kg Milligrams per Kilogram`
	`ug/l Micrograms per Liter`
	`ug/ml Micrograms per Milliliter`
	`ng/l Nanograms per Liter`
	`ng/ml Nanograms per Milliliter`
	`pCi/l Picocuries per Liter`
	`pCi/ml Picocuries per Milliliter`
	`nCi/l Nanocuries per Liter`
	`nCi/ml Nanocuries per Milliliter`
	`ft Feet Above Sealevel`
	
	Note: The Units Measured entry is **case sensitive**. Units must be entered *exactly* as shown above.
		ppb

Detection Limit	Enter the current detection limit for this parameter. This is the DEFAULT detection limit that will be stored with results below detection. limit (see the ground water data entry menus and the template instructions). You may change the detection limit at any time without affecting previously entered results. We recommend that the current or most frequently used detection limit be stored here. CHECK THE UNITS to make sure the detection limit matches the parameter. data. Changing the detection limit will not affect ground water data that have already been entered - these data are stored with 1. The detection limit entered during data entry (e.g., ND<0.005>), or 2. The default detection limit on file when the data were entered (<.>)	0.5
ACL	Report the Alternate Concentration Limit as defined in the permit. (Forstatistical purposes.) For further information see the Intervals Sections of the Statistical Guidance.	5.0
MCL	Report the Maximum Concentration Limit as defined in the permit. (For statistical purposes.) For further information see the Intervals Sections of the Statistical Guidance.	5.0

EPA Method Code	Enter the EPA code for the test used to measure this parameter. Many of these codes are documented in EPA SW-846. Many labs routinely reference these method codes in their reports. *REPORT THE CODE FOR THE TEST THAT WAS USED OR NONE IF UNKNOWN*	8020
Rpt Order Code	This entry determines the position order) of each parameter when listed to the screen or printer (reports). If you insert a parameter within an existing list, GRITS will automatically renumber the report order code for the other parameters at that facility.	1

Table 3-5. Entries for the ADD A PARAMETER and CHANGE A PARAMETER dialogs.

5 A pop-up for Replicate Analysis appears on your screen as shown in Figure 3-42.

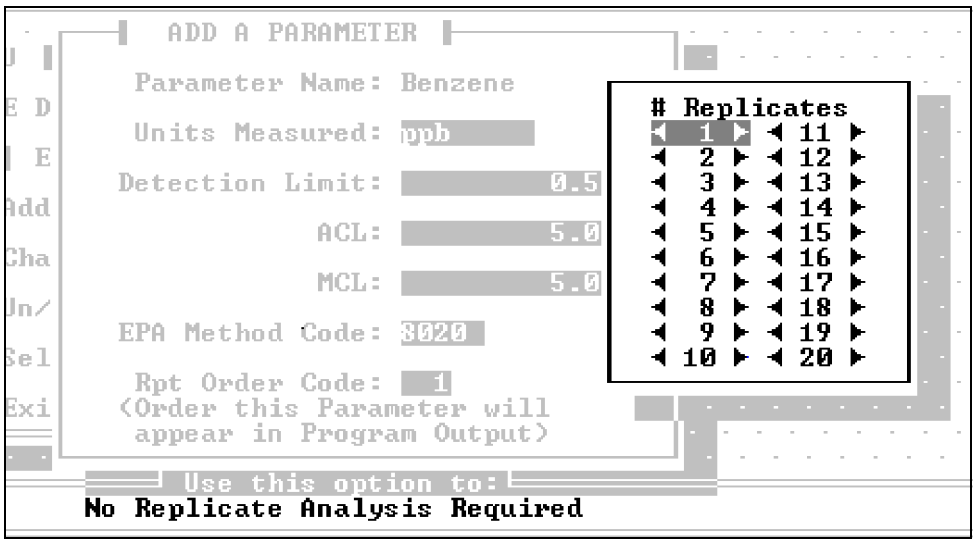


Figure 3-42. Replicate Analysis pop-up used to specify the number of replicates for the newly added parameter.

Use the up and down arrow keys to highlight the desired Replicate Analysis option and press <**Enter**>. Watch the footer message at the bottom of the screen. This tells you which Replicate Analysis option is currently highlighted.

If no Replicate Analysis is required highlight option ◂ **1** ▸ option and press <**Enter**>.

The footer message at the bottom of the screen says "Parameter has been added. Hit a Key.". Press <**Enter**> to returns to the EDIT PARAMS

MENU.

Figure 3-43 shows the **GRITS/STAT** database files after Benzene was added to the parameter list for XYZ Landfill.

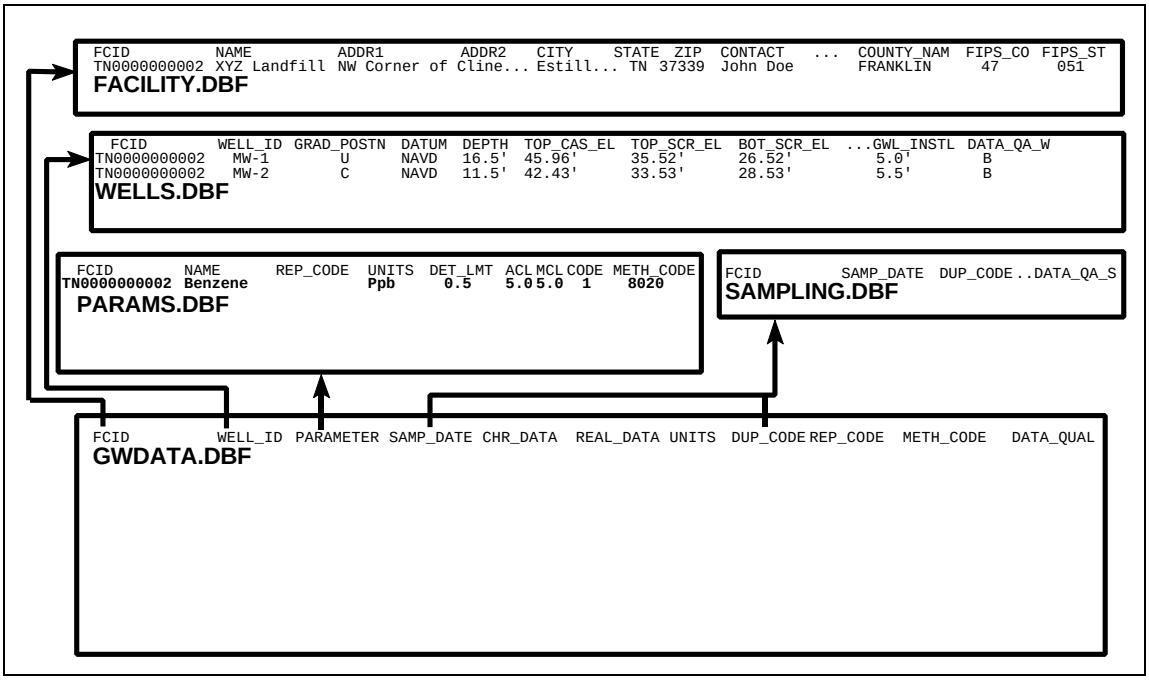


Figure 3-43. **GRITS/STAT** database files after Benzene is added to the XYZ Landfill. *Note the newly added row in PARAMS.DBF.*

Adding Multiple Parameters with the Package Menu

The Package Menu option of the ADD PARAM MENU is used a add a list of parameters to the currently selected facility. This option is extremely useful if you are managing data from multiple facilities where identical groups of parameters are monitored. The Package Menu lets you build lists of commonly used parameters. These lists may be added in bulk to a facility's parameter list. To access the Package Menu follow the steps below.

1. Get to the ADD PARAM MENU (See Section 3.4.3.1).

2. Press <**P**> or use the up and down arrow keys to highlight the Package Menu option of the ADD PARAM MENU and press <**Enter**>. The PARAM PACKAGE MENU shown in Figure 3.44 appears on your screen.

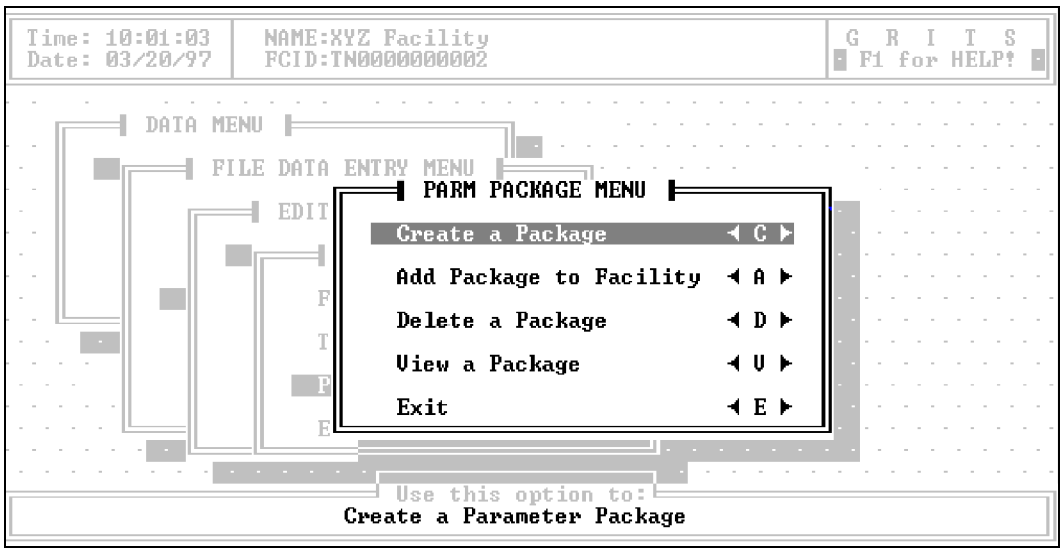


*Figure 3-44.*The PARAM PACKAGE MENU.

3. **GRITS/STAT** comes with six pre-defined Parameter Packages. You may create your own custom parameter package with the Create a Package option of the PARM PACKAGE MENU (See Creating a Custom Parameter Package).

4. To add a parameter package to the currently selected facility press <**A**> or use the up and down arrow keys to highlight the Add Package to Facility option and press <**Enter**>. A pop-up list of defined parameter packages appears on your screen as shown in Figure 3-45.

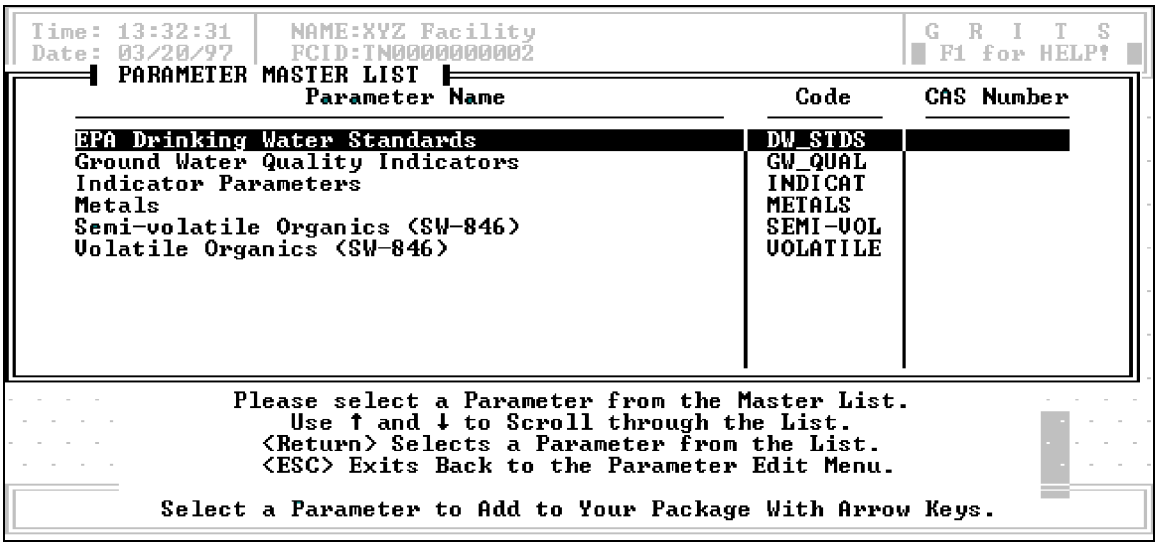


Figure 3-45. The pop-up list of parameter packages from the Add Packages to Facility option of the PARM PACKAGE MENU.

5. Use the up and down arrow keys to highlight the desired parameter package and press **<Enter>**. A message box will appear on your screen as shown in Figure 3-46 and count down the parameter as they are added. When complete the footer message at the bottom of the screen will say "Hit a key to continue...". Press **<Enter>** to return to the PARM PACKAGE MENU.

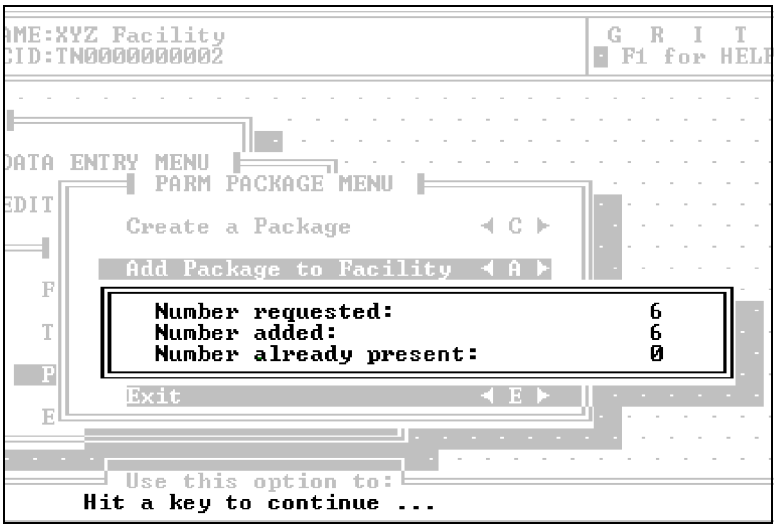


Figure 3-46. Message box after the Ground Water Quality Indicators Parameter Package was added to the XYZ Landfill.

Figure 3-47 shows the **GRITS/STAT** database files of Figure 3-43 after the six parameters of the Ground water Quality Indicators Parameter Package were added to the XYZ Landfill.

If you need to change any of the parameters added with the Add Package to Facility option use the Change Parameter Data option of the EDIT PARAMETERS MENU (See Section 3.4.3.2 CHANGE PARAMETER DATA).

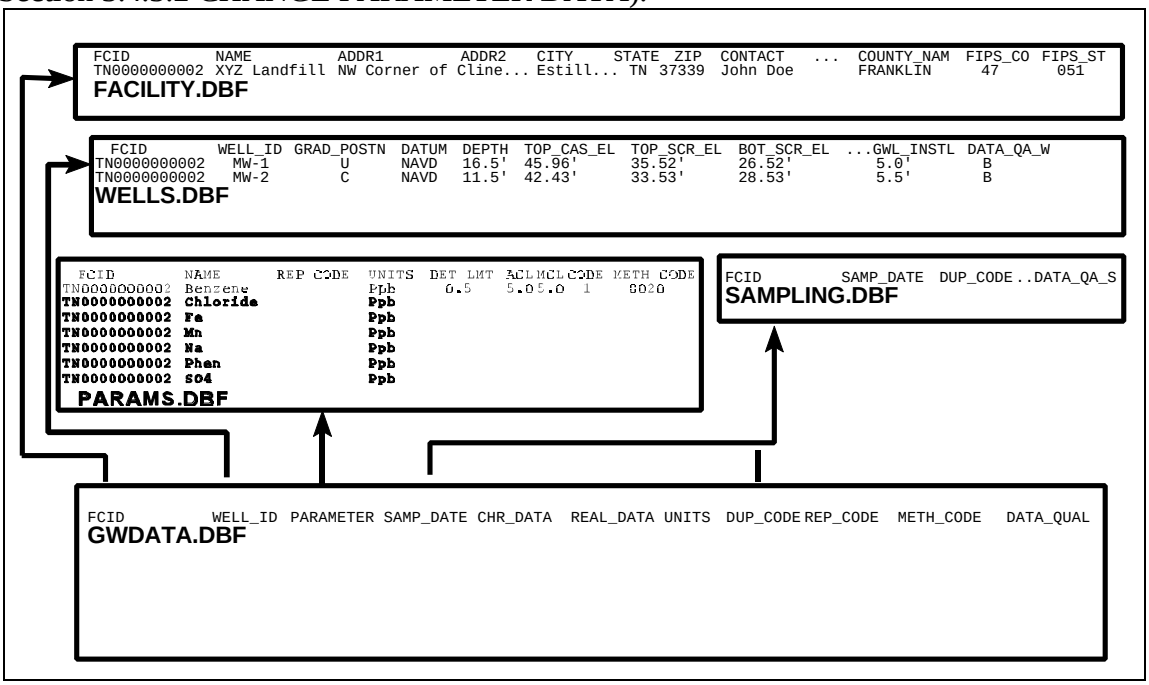


Figure 3-47. **GRITS/STAT** database files after the Ground water Quality Indicators package was added to the XYZ Landfill. *Note the newly added rows in PARAMS.DBF.*

Creating a Custom Parameter Package

If you need to create a Parameter Package other than the six pre-defined parameter packages follow the steps below.

1. Get to the ADD PARAM MENU (See Section 3.4.3.1).

2. Press <**P**> or use the up and down arrow keys to highlight the Package Menu option of the ADD PARAM MENU and press <**Enter**>. The PARM PACKAGE MENU should appear on your screen as shown in Figure 3-44.

3. Press <**C**> or use the up and down arrow keys to highlight the Create a Package option of the PARM PACKAGE MENU and press <**Enter**>. The dialog shown in Figure 3-48 appears.

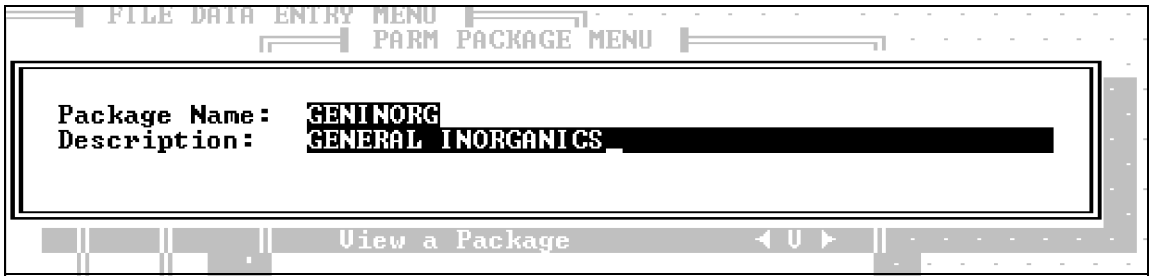


Figure 3-48. The Create a Package dialog.

Enter a unique Package Name and Description and press <**Page Down**>.

4. The PARAMETER MASTER LIST appears on the screen (Figure 3-40). Use the up arrow <↑>, down arrow <↓>, <**Page Up**> and <**Page Down**> keys to highlight a parameter that you want to add to your custom package and press <**Enter**>.

5. A pop-up for Replicate Analysis option appears on your screen (Figure 3-42). Use the up and down arrows to select the desired Replicate Analysis option and press <**Enter**>.

6. The LAST CHANCE MENU appears on your screen. Press <**A**> to add the selected parameter to your custom package. If you do not want to add the selected parameter to your custom package press <**E**>.

7. The ADD A PARAMETER dialog (Figure 3-41) appears for the selected parameter. Complete the entries in the ADD A PARAMETER dialog. Press <**Page Down**> to save your entries.

8. A prompt appears and asks "Add Another Parameter to List (Y/N)?". Press <**Y**> if you wish to add another parameter to your custom package. Press <**N**> if your custom package is complete and press <Enter> to return to the PARM PACKAGE MENU.

Deleting Parameter Packages

Custom parameter packages may be deleted if desired. Note that deleting a custom parameter package in no way affects the parameter list for the currently selected facility. To delete a parameter package follow the steps below:

1. Get to the ADD PARAM MENU (See Section 3.4.3.1).

2. Press <**P**> or use the up and down arrow keys to highlight the Package Menu option of the ADD PARAM MENU and press <**Enter**>. The PARM PACKAGE MENU should appear on your screen as shown in Figure 3-44.

3. Press <**D**> or use the up and down arrow keys to highlight the Delete a Package option of the PARM PACKAGE MENU. A list of custom parameter packages appears on your screen. Use the up and down arrow keys to highlight the package you want to delete and press <**Enter**>. A message box appear informing you "Package Deleted". Press <**Enter**> to return to the PARM PACKAGE MENU.

3.4.4 SAMPLING DATES EDITOR

The Sampling Dates Editor is used to add, edit and remove sampling events for the currently selected facility. To access the Sampling Dates Editor follow the steps below.

1. Start the **GRITS Database** module (See Section 3.2).

2. Press the <**F**> key or use the up and down arrow keys to highlight the File Data Entry Menu of the DATA MENU and press <**Enter**>. The FILE DATA ENTRY menu (Figure 3-8) will appear on your screen.

3. Press the <**S**> key or use the up and down arrow keys to highlight the Sampling Dates Editor option of the FILE DATA ENTRY menu and press <**Enter**>. The EDIT SAMP DATE menu appears on your screen as shown in Figure 3-49.

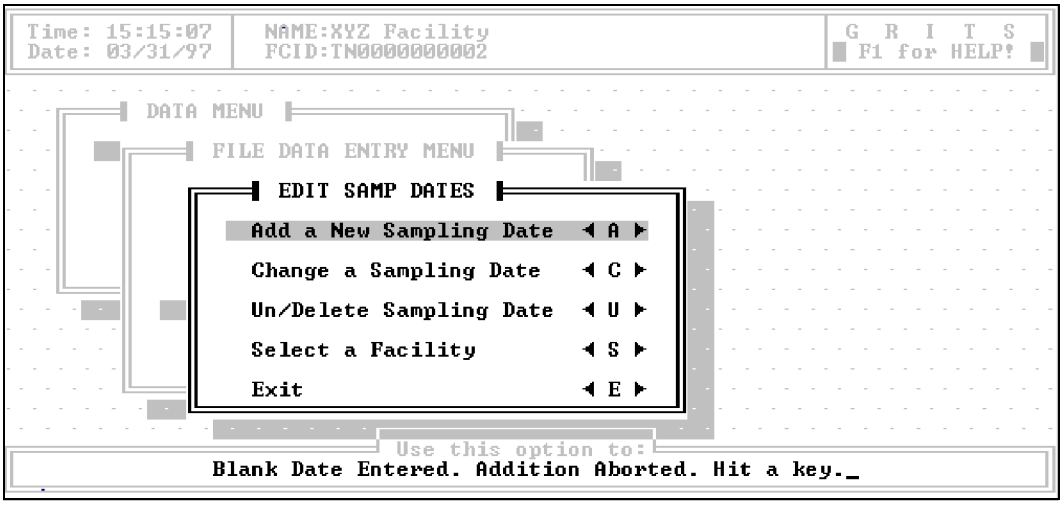


Figure 3-49. The EDIT SAMP DATES menu.

3.4.4.1 ADD A NEW SAMPLING DATE

The Add a New Sampling Date option of the EDIT SAMP DATES menu is used to add a sampling event to the currently selected facility. To add a new samplling event follow the steps below.

1. Get to the EDIT SAMP DATES menu (See Section 3.4.4).

2. Press <**A**> or use the up and down arrow keys to highlight the Add a New Sampling Date option of the EDIT SAMP DATES menu and press <**Enter**>.

3. The New Sampling Date pop-up appears on your screen as shown in Figure 3-50.

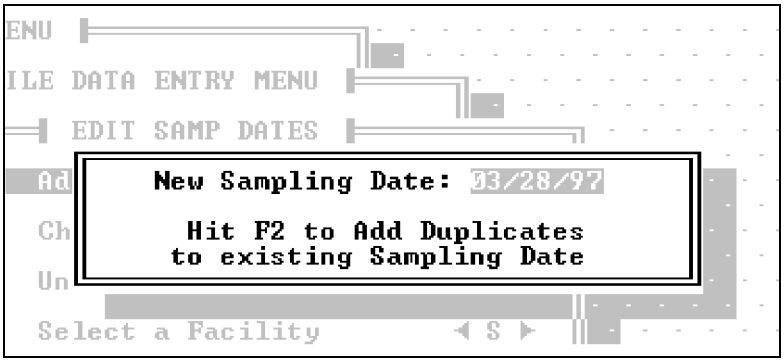


Figure 3-50. The New Sampling Date Dialog.

4. Type in the new sampling date in MMDDYY (month, day, year) format and press <**Enter**>. *It is not necessary to type the slashes that separate the month and day and the month and year*. The ADD A SAMPLING DATE dialog appears as shown in Figure 3-51.

> If you are adding a duplicate instead of entering a new date see section 3.4.4.2.

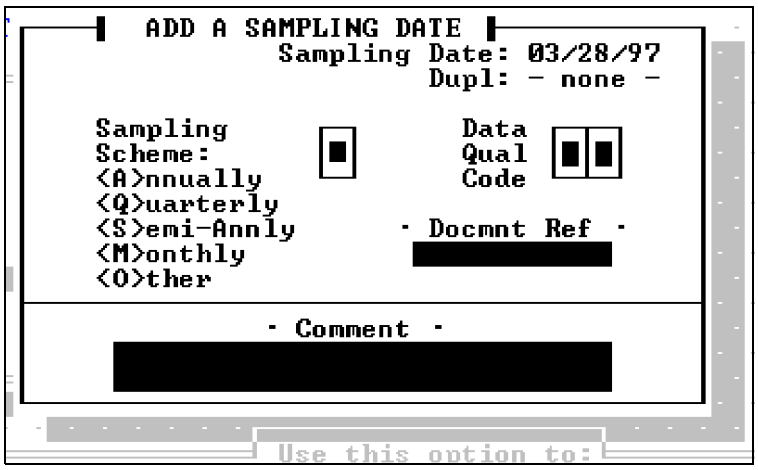


Figure 3-51. The ADD A SAMPLING DATE dialog.

5. Complete the entries in the ADD A SAMPLING DATE dialog. Use the up and down arrow keys to navigate between entries. Press **<Page Down>** to save the new sampling date record or press **<Esc>** to abort the sampling date entry.

   Table 3-6 describes each entry in the ADD A SAMPLING DATE dialog. Note that you may also press <F1> at each entry for context-sensitive help.

   See Table 3-3 for additional navigation, editing, toggle and exit keys.

ADD A SAMPLING DATE dialog entry	DESCRIPTION	Example

Sampling Scheme	Indicate the sampling program(s) aplicable to this date. YOU MUST NTER AT LEAST ONE CODE. Options nclude one or more of the following choices: <A> for Annual Sampling <S> for Semi-annual Sampling <Q> for Quarterly Sampling <M> for Monthly Sampling <O> for Other Sampling If <O> is chosen, indicate the type of sampling program in the comment field. You may enter up to 4 codes if multiple sampling programs are represented. For example, AQ designates a sampling event covering both annual and quarterly requirements.	Q

Data Qual Code	HQ SAMPLING CONFIDENCE FACTOR The entry in these fields is combined with the sampling site confidence indicator (see wells data entry screen) to create the SAMPLE/ANALYSIS CONFIDENCE FACTOR These codes have been defined by the EPA Office of Ground-Water Protection (see "Definitions for the Minimum Set of Data Elements for Ground-Water Quality, USEPA/OGWDW, July 1991). Enter the field sampling protocol code (A,B,C,D) in the first field: A = A detailed, field sampling protocol plan with standard procedures and internal checks exists; the objectives of the plan have been verified as met. B = A detailed, consulting lab-developed, field sampling protocol plan with standard procedures and internal checks exists; the objectives of the plan have been reported as met. C = A detailed, field sampling protocol plan with standard procedures and internal checks exists. D = No detailed, field sampling protocol exists Enter the laboratory QA/QC plan code (A,B,C,D) in the second field: A = A regulatory entity has	CC

	B = A detailed lab QA/QC plan with standard procedures and internal checks exists; the objectives of the plan have been reported as met. C = A detailed lab QA/QC plan with standard procedures and internal checks exists. D = No detailed QA/QC plan exists.	
Docmnt Ref	If a document control system is in place, enter the document code. Otherwise, enter the date of the document from which these data are taken.	Dec. 93
Comment	Enter any additional comments or information about this sampling event.	

Table 3-6. Entries for the ADD A SAMPLING DATE dialog and CHANGE A FACILITY dialog.

Figure 3-52 shows the **GRITS/STAT** database files of Figure 3-47 after four sampling dates were added to the XYZ Landfill by using the Add a New Sampling Date option of the EDIT SAMP DATES menu four times.

3.4.4.2 ADDING DUPLICATES

Duplicates (either for the Compliance Monitoring Evaluation (CME) or other purposes) are designated ***after*** the sampling date has been entered (See section 3.4.4.1 for instructions on entering the original sampling event). This procedure for adding a duplicate is the only way that two samples from the same well on the same date can both be entered. There are provisions for up to 4 CME or 4 other duplicates: these will be identified sequentially, "A" through "D", and "W" through "Z" for CME duplicates.

If more explanation or identification of the sampling date information would be useful, use the comment field to record information on the sampling program (e.g., 2nd semi-annual), or on any special conditions. Reference contains a document reference code if an internal document control system is in place, or simply the date of the document.

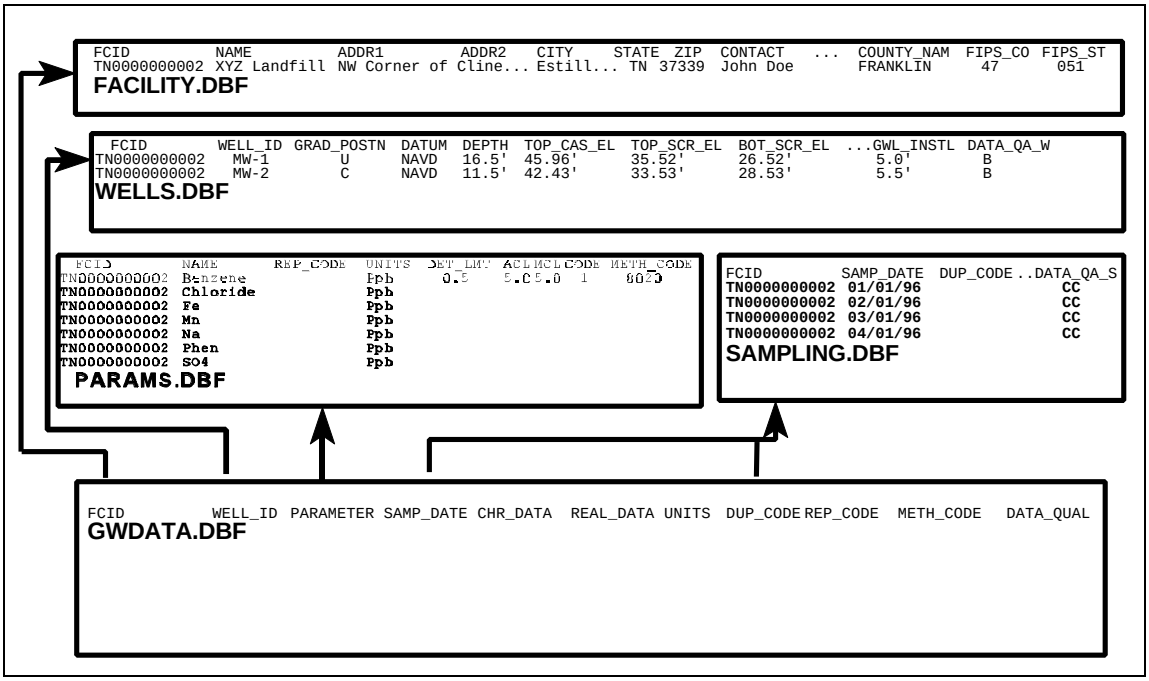


Figure 3-52. **GRITS/STAT** database files after four sampling dates were added to the XYZ Landfill. *Note the newly added rows in SAMPLING.DBF.*

To add a duplicate follow the steps below:

1. Get to the EDIT SAMP DATES menu (See Section 3.4.4).

2. Press <**A**> or use the up and down arrow keys to highlight the Add a New Sampling Date option of the EDIT SAMP DATES menu and press <**Enter**>. The New Sampling Date pop-up appears as shown in Figure 3-50.

3. Press the <**F2**> key. A pop-up list of existing Sampling Dates appears as shown in Figure 3-53.

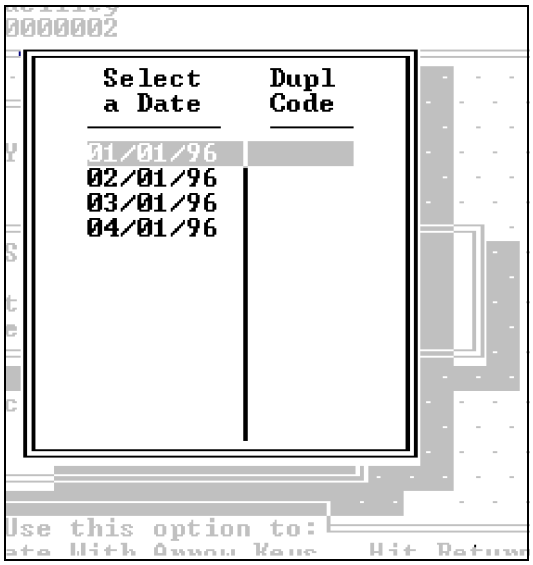


Figure 3-53. Pop-up list of existing Sampling Dates.

4. Use the up and down arrow keys to highlight the sampling date that you want to add a duplicate of and press <**Enter**>. The DUPLICATE LIST MENU as shown in Figure 3-54 appears on your screen.

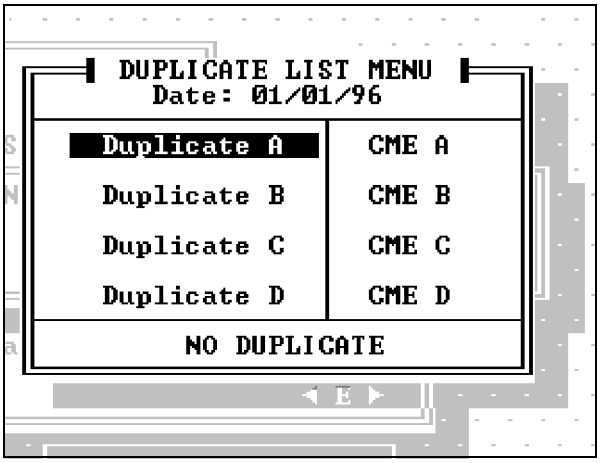


Figure 3-54. The DUPLICATE LIST MENU.

5. Use the up and down arrow keys to highlight the desired duplicate type. Note that a description of the currently highlighted duplicate will appear in the footer line at the bottom of your screen. Once the desired duplicate type is highlighted press <**Enter**>. The ADD A SAMPLING DATE dialog appears on your screen as shown in Figure 3-51.

6. Complete the ADD A SAMPLING DATE dialog. Use the up and down arrow keys to navigate between entries. Descriptions of each entry may be found in Table 3-6. Press **<Page Down>** to save your entries or press **<Esc>** to abort the addition of the duplicate.

3.4.4.3 CHANGE A SAMPLING DATE

The Change A Sampling Date option of the EDIT SAMP DATES menu is used to change existing sampling dates, duplicate codes and supporting entries. To edit an existing sampling date entry follow the steps below:

1. Get to the EDIT SAMP DATES menu (See Section 3.4.4).

2. Press the **<C>** key or use the up and down arrow keys to highlight the Change a Sampling Date option of the EDIT SAMP DATES menu and press **<Enter>**. A pop-up list of existing sampling dates for the currently selected facility appears on your screen as shown in Figure 3-53.

3. Use the up and down arrow keys to highlight the sampling date you wish to change and press **<Enter>**. The CHANGE A SAMPLING DATE dialog appears on your screen.

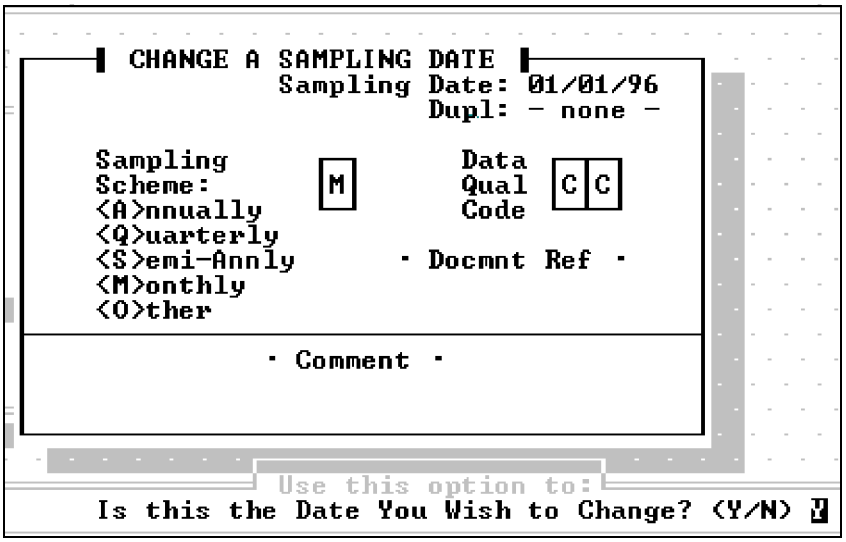


Figure 3-55. The CHANGE A SAMPLING DATE dialog.

The following prompt appears at the bottom of the screen:

Is this the Date You Wish to Change? (Y/N)

Press <**Y**> to edit this sampling date.

To abort editing this sampling date press <**N**>. The footer message will inform you: "Sampling Date Change Aborted. Hit a key". Press <**Enter**> to return to the EDIT SAMP DATES menu.

4. The following prompt appears at the bottom of your screen:

Do you wish to change the Date itself? (Y/N)

If you only want to change supporting entries for this sampling date and do not wish to change the Sampling Date or Duplicate Code press <**N**>.

Changing the Sampling Date or Duplicate Code

If you do want to change either the Sampling Date or the Duplicate Code press <**Y**>.

The SAMP DATE CHANGE menu appears on your screen as shown in Figure 3-56.

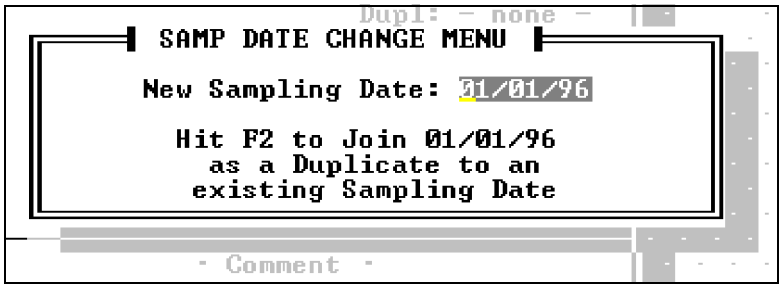


Figure 3-56. The SAMP DATE CHANGE MENU dialog

The SAMP DATE MENU lets you do one of the following:

Change the existing Sampling Date
Example: Change Sampling Date 01/01/96 to 01/15/96.

Make the existing Sampling Date a duplicate.
Example: Change 01/01/96 to a Duplicate A of 02/01/96.

To modify the date shown in the SAMP DATE MENU type in the desired date and press <**Enter**>.

To make the date shown in the SAMP DATE MENU a duplicate to an existing date press the <**F2**> key. A pop-up list of existing sampling dates appears as shown in Figure 3-53. Use the up and down arrow keys to highlight the date you want to create a duplicate of and press <**Enter**>.

The SAMP DATE CHANGE MENU appears as shown in Figure 3-57.

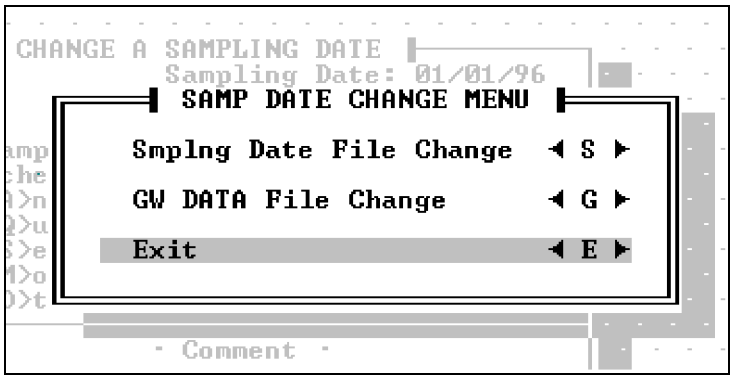


Figure 3-57. The SAMP DATE CHANGE MENU.

Press <**S**> or use the up and down arrow keys to highlight the Smplng Date File Change option of the SAMP DATE CHANGE MENU and press <**Enter**>. The Smplng Date File Change saves the changes made to the Sampling Date and Duplicate Code. If the Smplng Date File Change option is not executed changes to the Sample Date and Duplicate Code will not be saved.

Press <**G**> or use the up and down arrow keys to highlight the GW DATA File Change option of the SAMP DATE CHANGE MENU and press <**Enter**>.The GW DATA File Change locates all ground water observations stamped with the original sampling date and duplicate code and stamps them with the updated sampling date and duplicate code. For example if the sampling date:01/01/96 were changed to 01/15/96 the GW DATA File Change option locates all ground water observations stamped with a sampling date of 01/01/96 and stamps them with a sampling date of 01/15/96.

5. The entries in the CHANGE A SAMPLING DATE dialog become active. Make all desired changes. Use the up and down arrow keys to navigate

between entries. Press <**Page Down**> to save your changes.

3.4.4.4 DELETE A SAMPLING DATE

The Un/Delete Sampling Date option of the EDIT SAMP DATES menu is used to toggle the deletion flag for a user-selected sampling date. Sampling dates marked for deletion are not physically removed from your **GRITS/STAT** files until the Pack & Index option of the **GRITS Utilities** INDEX MENU is executed. To delete a Sampling Date follow the steps below. Note that the same procedure is used to recall (or clear deletion marks from) a sampling date.

1. Get to the EDIT SAMP DATES menu (See Section 3.4.4).

2. Press <**U**> or highlight the Un/Delete Sampling Date option of the EDIT SAMP DATES and press <**Enter**>. A pop-up list of existing sampling dates appears on your screen as shown in Figure 3-53.

3. Use the up and down arrow keys to highlight the sampling date and duplicate code you wish to mark or unmark for deletion and press <**Enter**>.

4. If you a marking this sampling date for deletion the DELETE A SAMPLING DATE dialog appears on your screen as shown is Figure 3-58.

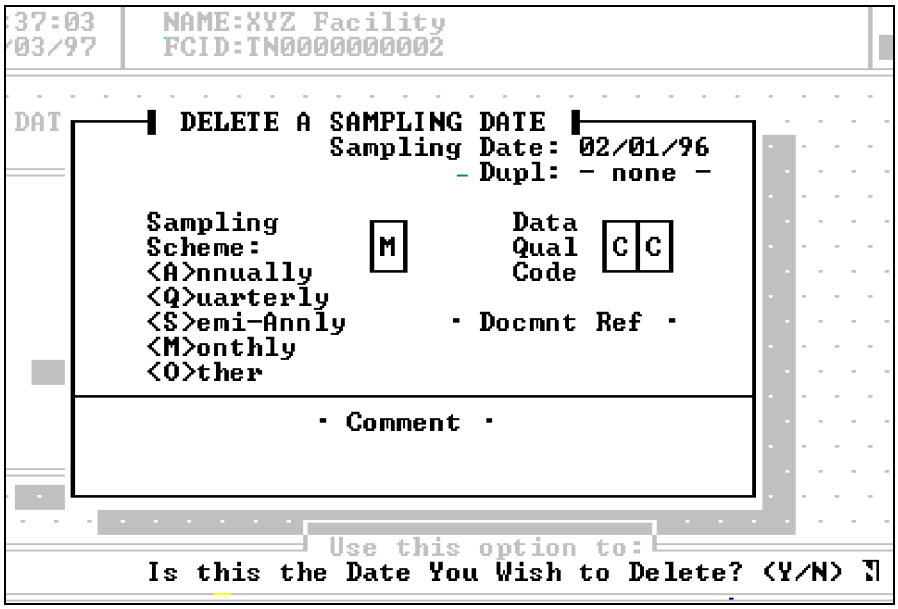


Figure 3-58. The DELETE A SAMPLING DATE dialog.

The following prompt appears at the bottom of your screen:

Is this the Date You Wish to Delete? (Y/N)

If you do not want to delete the date shown in the DELETE A SAMPLING DATE dialog press <**N**>. The footer message changes to:"Sampling Date Deletion/Restoration Aborted. Hit a key.". Press <**Enter**> to return to the EDIT SAMP DATES menu.

If you do want to mark the date shown in the DELETE A SAMPLING DATE DIALOG press <**Y**>. The DELETION MENU appears on your screen as shown in Figure 3-59.

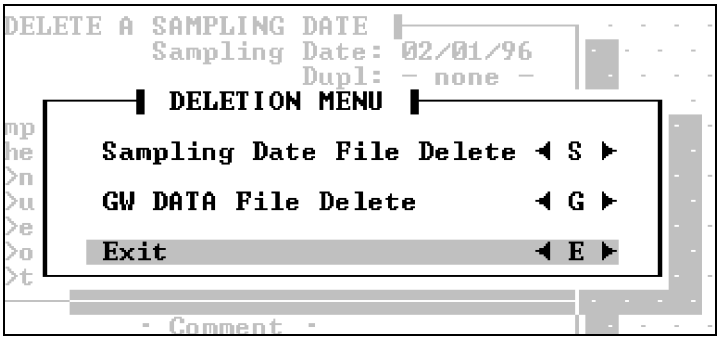


Figure 3-59. The DELETION MENU.

5. Press <**S**> or use the up and down arrow keys to highlight the Sampling Date File Delete option of the DELETION MENU and press <**Enter**>. This option marks the Sampling Date shown in the DELETE A SAMPLING DATE dialog for deletion. The Sampling Date File Delete option changes to Sampling Date File Recall.

   Press <**G**> or use the up and down arrow keys to highlight the GW DATA File Delete option and press <**Enter**>. The GW DATA File Delete option marks all ground water observations stamped with the date shown in the DELETE A SAMPLING DATE dialog for deletion.

6. To physically remove the sampling date and all ground water observations taken on that sampling date execute the Pack & Index option of the **GRITS Utilities** INDEX MENU. Note that after executing the Pack & Index options the sampling dates and associated ground water observations are physically removed from your **GRITS/STAT** files and cannot be recalled.

3.5 GW DATA ENTRY MENU

The GW Data Entry Menu of the DATA MENU is used to add, edit and delete ground water observations for the currently selected facility.

Prior to entering ground water observations you must first enter facility data, well data, parameters and sampling events (See Section 3.4).

To access the GWDATA Entry Menu follow the steps below.

1. Start the **GRITS Database** module (See Section 3.2).

2. Press <**D**> or use the up and down arrow keys to highlight the GW DATA Entry Menu option of the DATA MENU and press <**Enter**>. The GW DATA ENTRY MENU appears on your screen as shown in Figure 3-60.

3.5.1 USE PROGRAM DATA EDITOR

The Use Program Data Editor option of the GW DATA ENTRY MENU is the native ground water observation editor in **GRITS Database**. *(The Make a Results Template and Read a Results Template options require the use of Lotus® 1-2-3.)* To access the Use Program Data Editor option of the GW DATA ENTRY MENU follow the steps below.

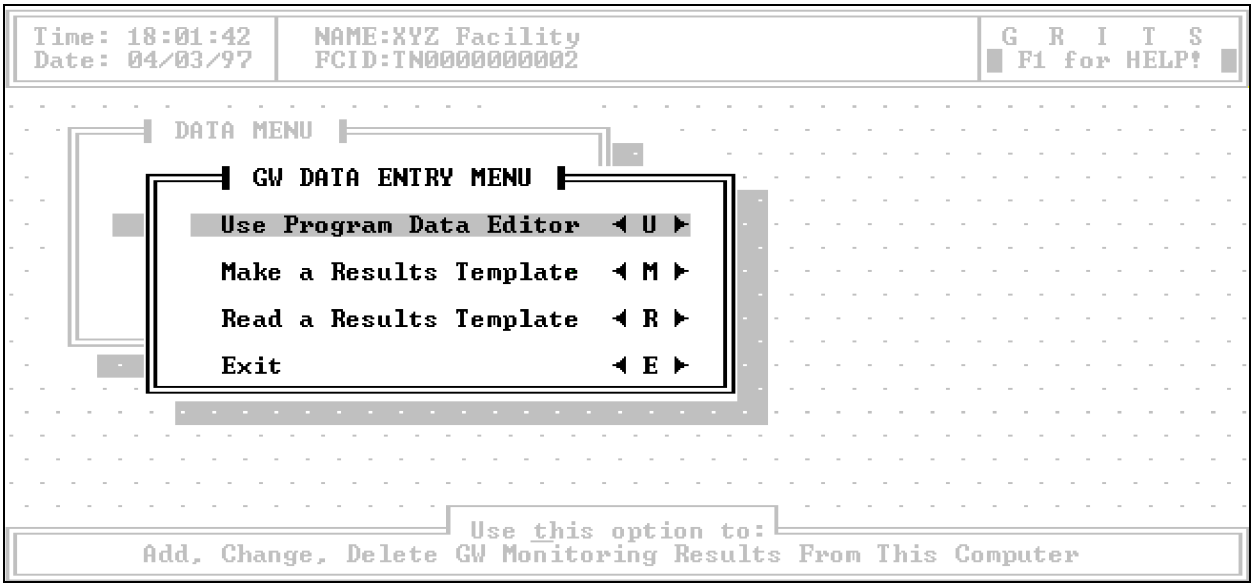


Figure 3-60. The GW DATA ENTRY MENU.

1. Get to the GW DATA ENTRY MENU (See Section 3.5).

2. Press <**U**> or use the up and down arrow keys to highlight the Use Program Data Editor option of the GW DATA ENTRY MENU and press <**Enter**>. The EDIT GW DATA MENU appears on your screen as shown in Figure 3-51.

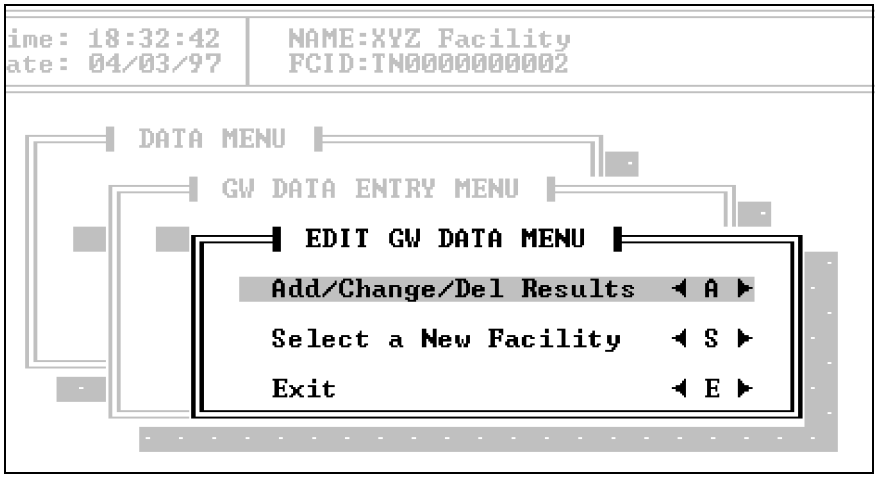


Figure 3-61. The EDIT GW DATA MENU.

3.5.1.1 ADD/CHANGE/DEL RESULTS

The Add/Change/Del Results option of the EDIT GW DATA MENU is used to add, edit and delete ground water observations from the currently selected facility. To add, edit or delete ground water observations follow the steps below.

1. Get to the EDIT GW DATA MENU (See Section 3.5.1).

2. Press <**A**> or use the up and down arrow keys to highlight the Add/Change/Del Results option of the EDIT GW DATA MENU and press <**Enter**>. A pop-up list of sample dates for the currently selected facility appears on your screen as shown in Figure 3-62.

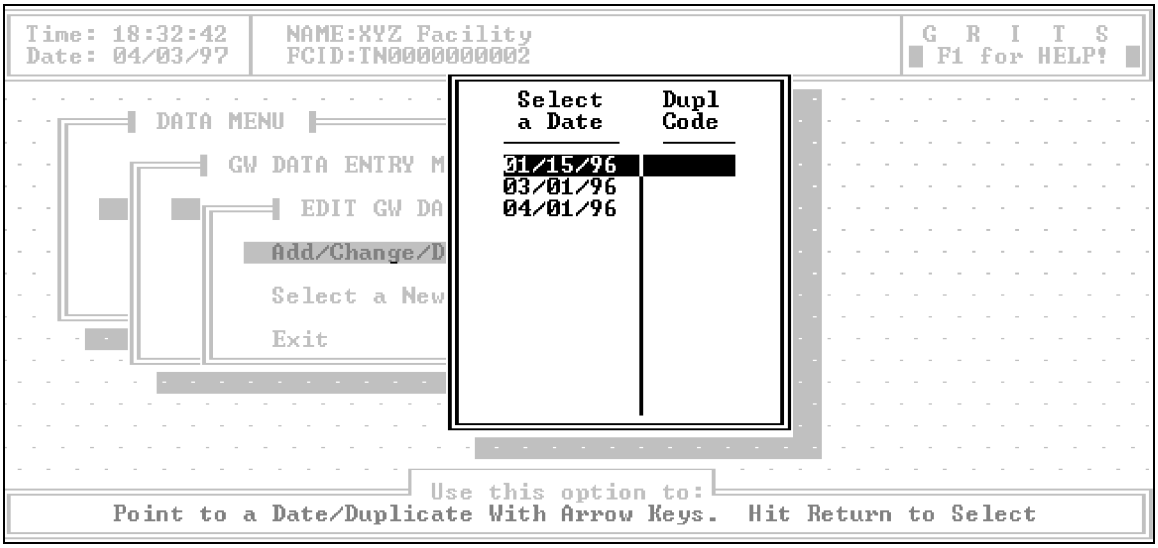


Figure 3-62. Pop-up list of sample dates.

3. Use the up and down arrow keys to highlight the sample date that you wish to add, edit or delete ground water observations for and press **<Enter>**. A pop-up list of wells for the currently selected facility appears on your screen as shown in Figure 3-63.

4. Use the up and down arrow keys to highlight the well that you wish to add, edit or delete ground water observations for and press **<Enter>**. A ground water data entry form for the selected sampling date and well appears on your screen as shown in Figure 3-64.

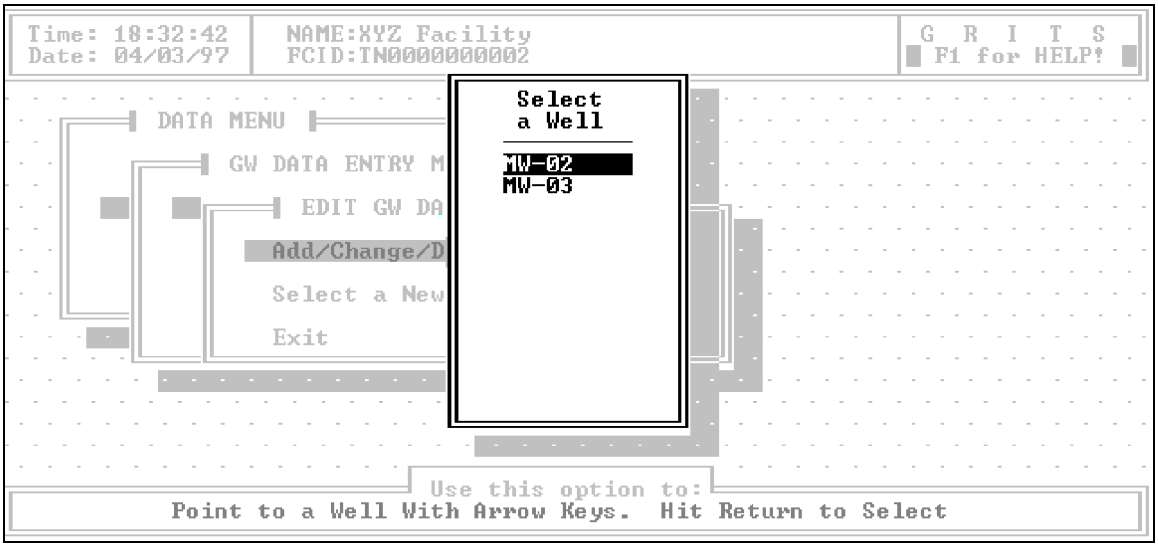


Figure 3-63. Pop-up list of wells for the currently selected facility.

Make all desired modifications to the ground water observations for this sampling date and well. Instructions for adding, editing and marking ground water observations for deletion are shown in Table 3-7.

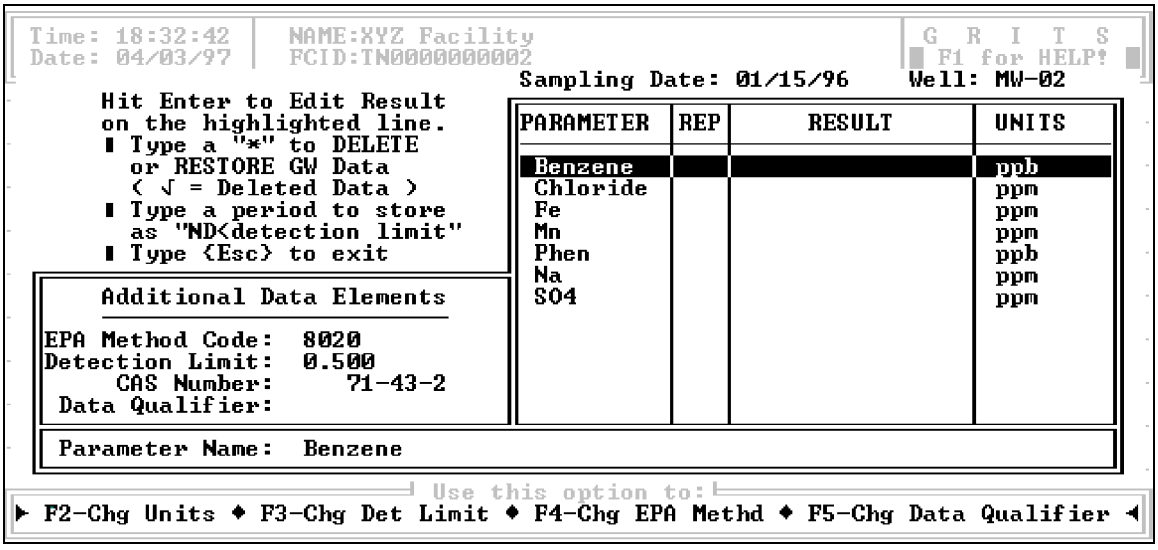
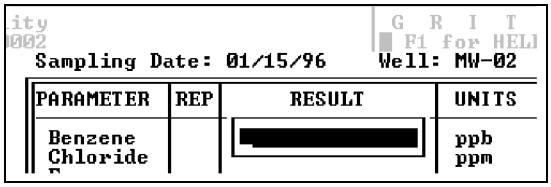
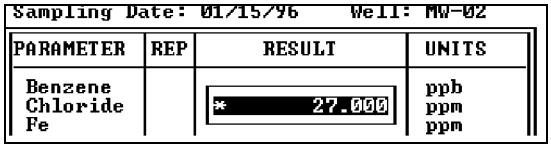


Figure 3-64. Ground water data entry form for Sampling Date 01/15/96 and Well:MW-02 for the XYZ Facility.

Task	Instructions
Entering or Editing an observation  *Figure 3-65.* Editing the entry for Benzene, Sampling Date:01/15/96, Well: MW-02.	1. Use the up and down arrow keys to highlight the parameter that you wish to edit or add an observation for. 2. Press **<Enter>**. A box appears around the ground water observation cell and the cell becomes active as shown in Figure 3-65. 3. Type in the observation and press **<Enter>**. For example to enter an observation for Benzene in Figure 3-65 type **<15>** and press **<Enter>**. Note see the EDITING KEYS in Table 3-3.

Entering a Nondetect	1. Use the up and down arrow keys to highlight the parameter that you wish to edit or add an observation for. 2. Press **<Enter>**. A box appears around the ground water observation cell and the cell becomes active as shown in Figure 3-65. 3. Nondetects may be entered in one of two ways. If you want to record a nondetect at the default detection limit type **<.>** **<Enter>**. The default detection limit is the value entered for the parameter in the Parameter Data Editor (See Section 3.4.3). ***Example:*** The default Detection Limit entered for Na for the XYZ Landfill is 5 ppm.. To record a nondetect at 5 ppm type **<.>** **<Enter>**. Nondetects may also be entered by simply typing **<ND<x>** **<Enter>** *(where x is the desired detection limit)*. ***Example:*** Although the default detection limit for Na for the XYZ Landfill is 5 ppm, I need to record a nondetect for Na at 15 ppm. Type **<ND<15>** **<Enter>**.

Mark/Unmark an observation for deletion



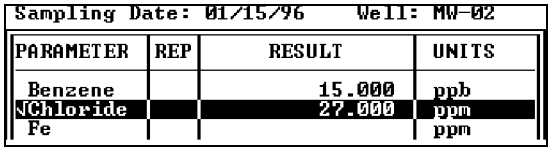


Figure 3-66. Marking Chloride for deletion. The √ indicates that the Chloride observation of 27 ppm is marked for deletion.

To toggle the deletion flag for a observation follow the steps below.

1. Use the up and down arrow keys to highlight the parameter that you wish to mark/unmark for deletion.

2. Press **<Enter>**. A box appears around the ground water observation cell and the cell becomes active as shown in Figure 3-65.

3. Type **<*> <Enter>**. A check mark will appear beside the parameter name to indicate that the observation is marked for deletion.

Example: To mark the observation for Chloride for deletion use the up and down arrow keys to highlight Choride and press **<Enter>**. Type **<*>** (Figure 3-66) and press **<Enter>**. A check mark appears besides Chloride indicating that the observation is marked for deletion.

To permanently remove observations marked for deletion you must execute the Pack & Index option of the INDEX MENU in the **GRITS Utilities** module.

Change Units

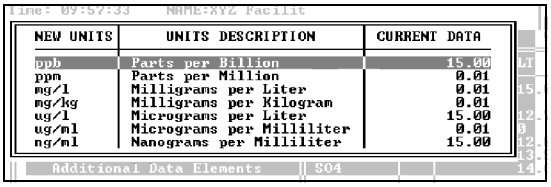


Figure 3-67. Pop-up list of units. The CURRENT DATA column displays how the currently highlighted observation will appear if the units are changed.

The Chg Units option of the ground water data entry form changes the units for the current parameter. Note that this option affects *all* ground water entries for all sampling dates for the highlighted parameter. To change the units for the currently selected parameter follow the steps below:

1. Use the up and down arrow keys to highlight the parameter you want to change units for.

2. Press <**F2**>. A pop-up list of available units will appear on your screen as shown in Figure 3-67.

3. Use the up and down arrow keys to highlight the desired units and press <**Enter**>.

Change the Default Detection Limit

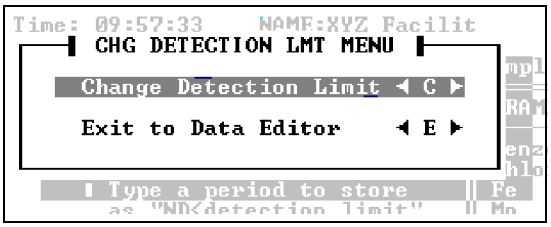


Figure 3-68. The CHG DETECTION LMT MENU.

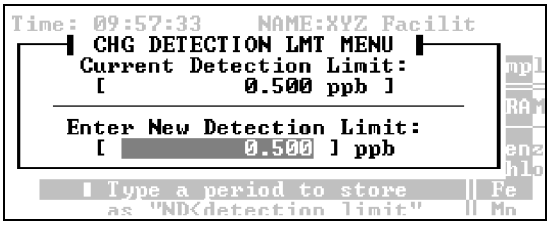


Figure 3-69. The CHG DETECTION LMT MENU prompt for the new Detection Limit.

The Chg Det Limit option of the ground water data entry form changes the currently highlighted parameters default detection limit. The default detection limit is the value used when a period <.> is entered to record a nondetect.

This option does not alter existing nondetects. To change the default detection limit follow the steps below.

1. Use the up and down arrow keys to highlight the parameter that you want to change the default detection limit for.

2. Press <**F3**>. The CHG DETECTION LMT MENU appears on your screen as shown in Figure 3-68.

3. Press <**C**> or use the up and down arrow keys and highlight the Change Detection Limit option and press <**Enter**>. The CHG DETECTION LMT MENU now prompts: "Enter New Detection Limit". Type the desired detection limit and press <**Enter**>. The footer message at the bottom of the screen changes to "Default Detection Limit Change Completed. Hit any Key to Continue". Press <**Enter**> to return to the Ground Water Data Entry Form.

Change EPA Method

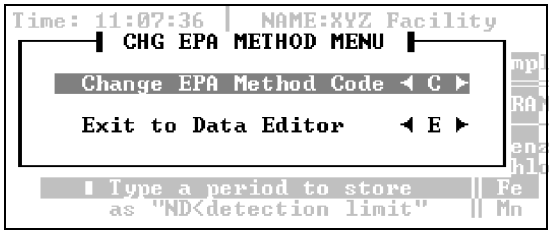


Figure 3-70. The CHG EPA METHOD MENU.

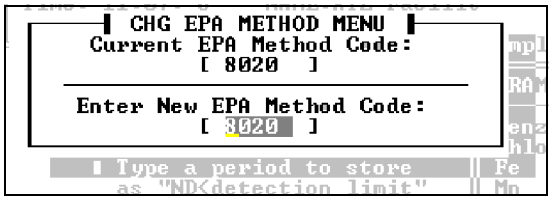


Figure 3-71. The CHG EPA METHOD MENU prompt for a new EPA Method Code.

The Chg EPA Methd option is used to change the currently highlighted parameters EPA Method Code. To change a parameters EPA Method Code follow the steps below.

1. Use the up and down arrow keys to highlight the parameter that you want to change the EPA Method Code for.

2. Press <**F4**>. The CHG EPA METHOD MENU appears on your screen as shown in Figure 3-70.

3. Press <**C**> or use the up and down arrow keys to highlight the Change EPA Method Code option and press <**Enter**>. The CHG EPA METHOD MENU now prompts Enter New EPA Method Code. Type in the desired EPA Method Code and press <**Enter**>. The footer message changes to "Default EPA Method Code Change Completed. Hit any Key to Continue". Press <**Enter**> to return to the Ground Water Data Entry Form.

Change Data Qualifier	The Chg Data Qualifier option is used to enter or change the measurement qualifier. Measurement qualifiers provide additional information which help evaluate the reported concentration (or other) value. The EPA Contract Lab Program has defined a set of qualifiers that are commonly reported, including: A = Mean B = Analyte in blank C = Analyte present by GC/EC or GC/MS D = Diluted sample E = Exceeds instrument quantitation F = Field measurement J = Estimated K = Actual value < reported value K = Actual value > reported value M = Dupe injection precision unmet N = Tentatively identified O = Analysis lost P = Present (not quantified) R = Rejected S = Sample not properly stored U = Tested but not detected (ND) V = Calculated value W = Post-digestion spike for Furnace AA analysis out of control limit; sample absorbance < 50% of spike X = Too numerous to count Y = Sample not filtered Z = Unsuitable for analysis * = Dupe not within control limit + = Correlation coefficient for the method standard additions < 0.995 or The EPA Office of Ground-Water Protection has defined codes to use as necessary (see "Definitions for the Minimum Set of Data Elements for Ground-Water Quality, USEPA / OGWDW, July 1991): 01 = Value reported is a mean 02 = Colony counts outside acceptable range

	acceptable range 03 = Calculated value 04 = Field measurement 05 = Extra samples taken at composite stations 06 = For species, F indicates female 07 = Maximum of multiple determinations 08 = Field kit; results may not be accurate 09 = Estimated value; value inaccurate 10 = Actual value < reported value 11 = Actual value > reported value 12 = Presence of material verified but not quantified; OR M indicates a negative temperature or oxygen reduction potential; OR For species, M indicates male sex 13 = Presumptive evidence of material 14 = Sampled, but analysis lost or not performed 15 = Too numerous to count (TNTC) 16 = Sample held beyond recommended holding time 17 = Significant rain in past 48 hours 18 = Laboratory test 19 = Value is below criteria of detection 20 = Analyzed but not detected. For species, U indicates unknown 21 = Value < lowest value reportable under "T" code 22 = Quasi vertically - integrated sample 23 = Numeric value represents the filtration volume 99 = Value reported from diluted sample To enter a measurement qualifier code follow the steps below.

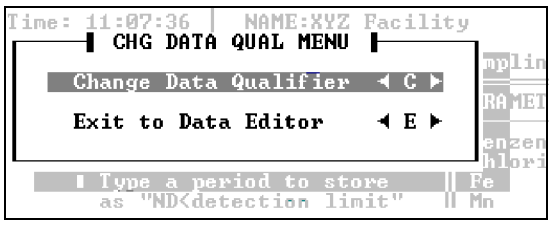


Figure 3-72. The CHG DATA QUAL MENU.

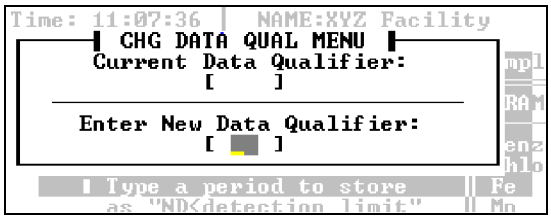


Figure 3-73. The Enter New Data Qualifier prompt.

1. Use the up and down arrow keys to highlight the observation that you want to enter a qualifier for.

2. Press <**F5**>. The CHG DATA QUAL MENU appears on your screen as shown in Figure 3-72.

3. Press <**C**> or use the up and down arrow keys to highlight the Change Data Qualifier option and press <**Enter**>. The CHG DATA QUAL menu now prompts: "Enter New Data Qualifier" (Figure 7-73). Type the new measurement qualifier and press <**Enter**>. The footer message at the bottom of the screen says "Data Qualifier Change Completed. Hit any Key to Continue". Press <**Enter**> to return to the Ground Water Data Entry Form.

5. When you have completed all desired entries and changes press <**Esc**>. The COMMAND MENU shown in Figure 3-74 appears on your screen.

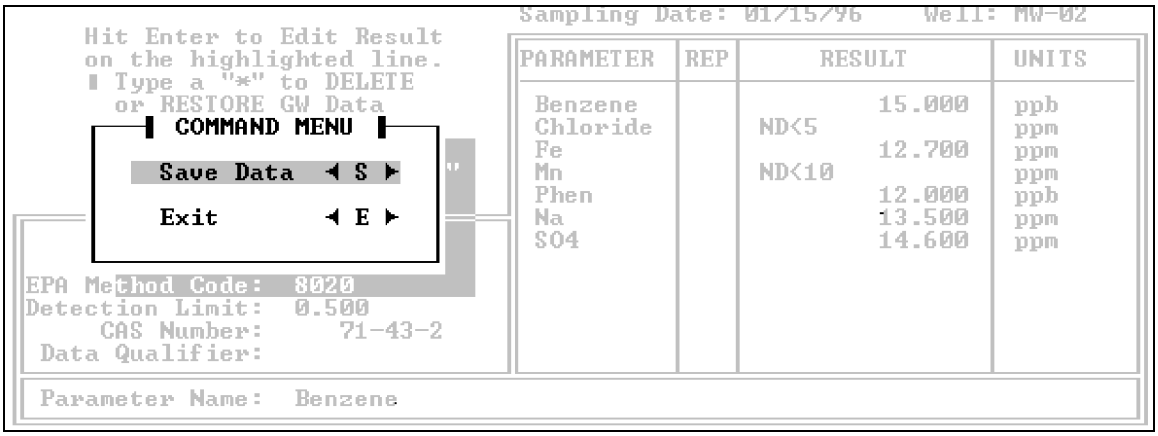


Figure 3-74. The COMMAND MENU.

6. To save all changes press <**S**> or use the up and down arrow keys to highlight the Save Data option of the COMMAND MENU and press <**Enter**>. A SUMMARY dialog (Figure 3-75) appears and reports the number of ground water observations added, modified, marked for deletion and unmarked for deletion.

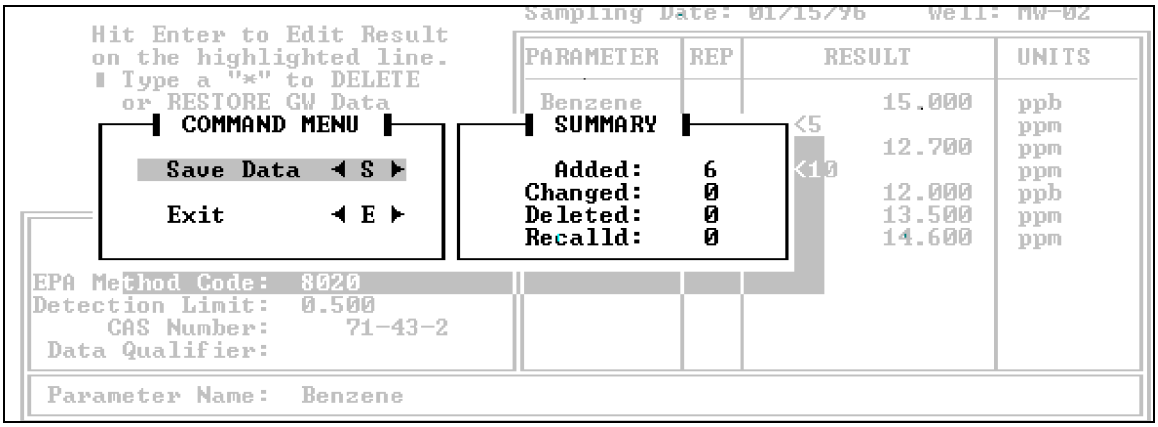


Figure 3-75. The COMMAND MENU after the Save Data option is executed. The SUMMARY reports the number of ground water observations added, changed, marked for deletion and unmarked.

Press **<E>** or use the up and down arrow keys to highlight the Exit option and press **<Enter>**.

7. The COMMAND MENU now changes and offers the following choices: Repeat this Sampling Date and Exit.

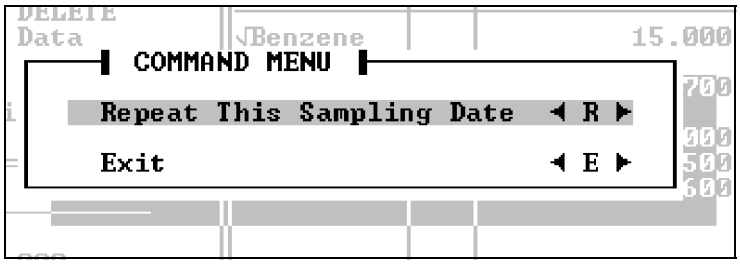


Figure 3-76. The COMMAND MENU to repeat the last sampling date and switch wells.

If you want to keep working on the same sampling date and switch to another well press **<R>** or use the up and down arrow keys and highlight the Repeat this Sampling Date option and press **<Enter>**. A pop-up list of wells for the selected facility will appear. Follow the instructions for ground water data entry from step 4.

If you are finished entering ground water observations press **<E>** or use the up and

down arrow keys to highlight the Exit option and press <**Enter**>. This will take you to the EDIT GW DATA MENU.

3.5.2 USING RESULT TEMPLATES

Result Templates are files that can be edited in Lotus® 1-2-3 and imported into **GRITS Database**. Each Result Template covers one sampling date

Table 3-8 summarizes the capabilities of Result Templates.

Spreadsheet Templates CAN Be Used To	**Spreadsheet Templates CANNOT Be Used To**
Edit ground water data for wells, dates, and parameters already in **GRITS/STAT** (results)	Delete ground water data
Add ground water data for wells, dates, and parameters already in **GRITS/STAT** (results)	Change units from those imported with the spreadsheet (these are only for reference)
Edit the detection limit for the dates and results listed on the spreadsheet	Change the default detection limit listed with the parameter (you must use the parameter editor)
Record data qualifiers with the results	Add well IDs not already in **GRITS/STAT**
	Change or add sampling dates not already in **GRITS/STAT**
	Change or add parameters not already in the facility-specific list

Table 3-8. What Result Templates can and cannot do.

The steps for creating and using result templates are summarized below.

1. If this is a new facility create a data directory and enter Facility Information (see section 3.4.1), the list of wells being monitored at the facility (see section 3.4.2), the list of parameters being monitored (see section 3.4.3) and the sampling dates (see section 3.4.4).

2. Execute the Make a Results Template option of the GW DATA ENTRY

MENU (see section 3.5.2.1).

3. Enter the ground water observations in the resulting template using Lotus® 1-2-3.

4. Execute a Lotus® 1-2-3 macro to create an import PRN file.

5. Import the PRN file into **GRITS Database** using the Read a Results Template option of the GW DATA ENTRY MENU.

3.5.2.1 MAKE A RESULTS TEMPLATE

The Make a Results Template option of the GW DATA ENTRY MENU is used to create a results template file for a user selected sampling date that may be edited in Lotus® 1-2-3. To create a Results Template file follow the steps below.

1. Select the Facility Data Directory of the facility you want to make a Results Template for (see section 3.3). The selected Facility must have facility information, one or more wells, one or more parameters and one or more sampling dates already entered.

2. Get to the GW DATA ENTRY MENU (see section 3.5).

3. Press <**M**> or highlight the Make a Results Template option and press <**Enter**>. The MAKE GW DATA ENTRY menu appears on your screen as shown in Figure 3-77

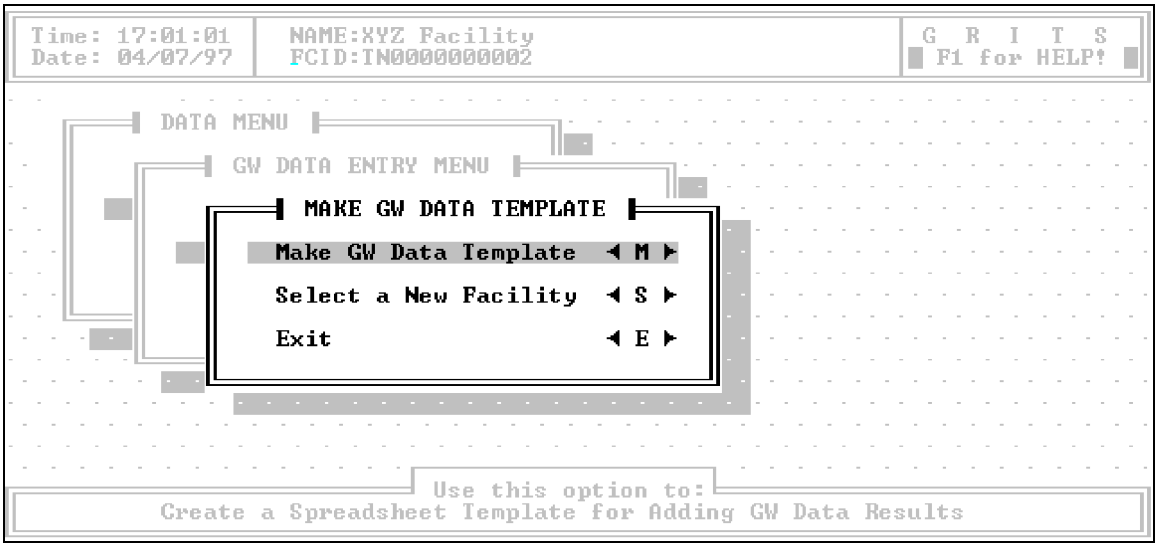


Figure 3-77. The MAKE GW DATA TEMPLATE menu.

4. Press <**M**> or highlight the Make GW Data Template option and press <**Enter**>. A pop-up list of sample dates appears as shown in Figure 3-78.

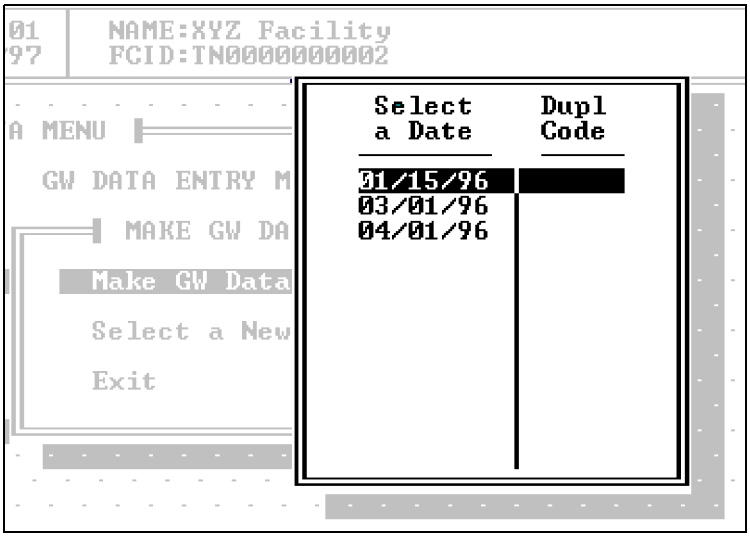


Figure 3-78. The date selection pop-up list used to select the date to produce a results template for.

5. Use the up and down arrow keys to highlight the desired date and press <**Enter**>.

6. The following prompt appears at the bottom of your screen:
Enter File Name:

Type a valid MS-DOS filename and press <**Enter**>. You must include the directory where you want the file to go.

Since you are creating a template file for a given facility and sampling date we recommend that the filename be of the following format:

FFMMDDYY.PRN

where:
FF is a two character abbreviation for the facility
MM is the sampling date month
DD is the sampling date day
YY is the sampling date year

Example: Since I am creating a Results Template for XYZ Landfill for sampling date 01/15/96 the name of my Results Template will be XY011596.PRN. My data

directory is D:\ABCLAND.At the Enter File Name prompt I type:

<D:\ABCLAND\ZY011596.PRN> <Enter>

7. A dialog appears and reports the results as shown in Figure 3-79. The footer message says "Template Created. Hit any Key to Continue". Press <**Enter**> to return to the MAKE GW DATA TEMPLATE menu.

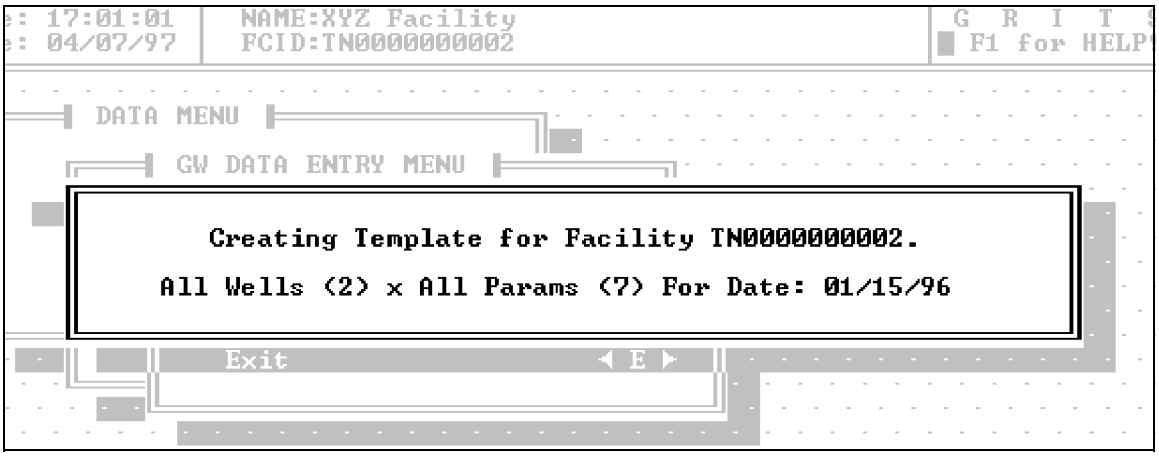


Figure 3-79. Informational dialog reporting the successful creation of a template for two wells and seven parameters for sampling date 01/15/96.

8. Exit the **GRITS Database** module. Exit **GRITS/STAT 5.0** and start Lotus® 1-2-3.

Note: This example uses Lotus® 1-2-3 for DOS Release 2.3. The MS DOS command for starting Lotus® 1-2-3 is usually <**123**> <**Enter**>.

9. Once Lotus® 1-2-3 is running type the following to load the GRITS/STAT results template.

</><F><I><N>

(</> to bring up the command line, <**F**> for File, <**I**> for Import, <**N**> for Numbers.)

10. Lotus® 1-2-3 now prompts: "Enter name of file to import:". Press <Esc> and type the full MS DOS filename of the Result Template and press <Enter>.

Example: My Results Template was save as D:\ABCLAND\XY011596.PRN. So I type:

<Esc> <D:\ABCLAND\XY011596.PRN> <Enter>.

The Results Template appears on your screen as shown in Figure 3-80.

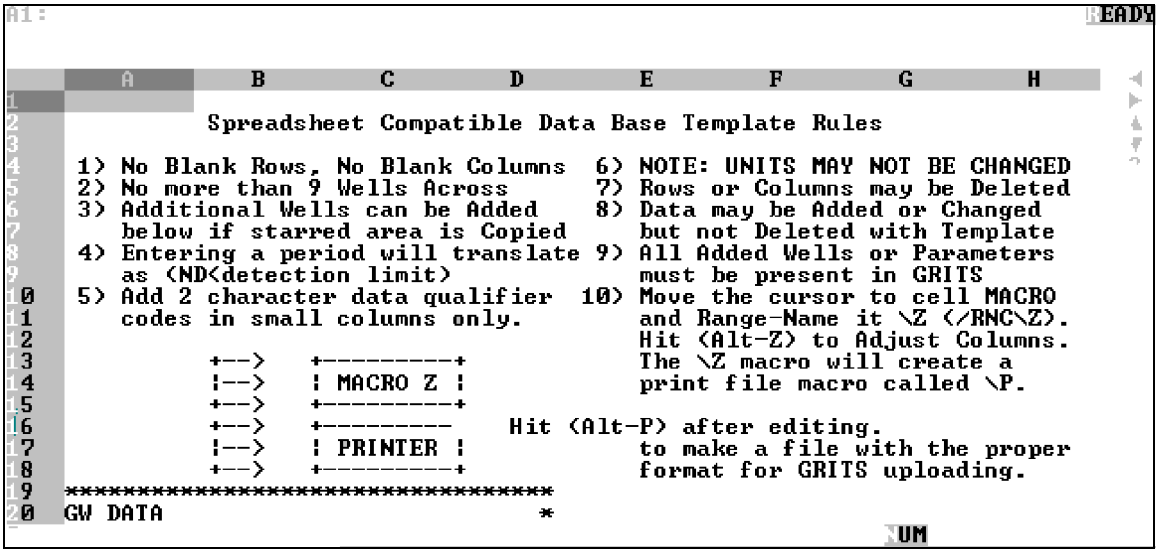


Figure 3-80. The Results Template loaded in Lotus® 1-2-3.

11. Use the arrow keys to move the cursor to the worksheet cell that says MACRO Z as shown in Figure 3-81 and Range-Name it \Z by typing the following sequence of keys: </> **<R>** **<N>** **<C>** <\> **<Z>** **<Enter>**. Hit <**Enter**>agian when asked "Enter Range: C14..C14"

    This creates an **<Alt>** **<Z>** Macro which adjusts the columns for easier data entry. Hold the **<Alt>**<**Z**> keys at the same time to adjust the columns; the \Z macro will also create a print file macro called \P. Enter the data at this time after the spreadsheet adjusts itself for easier data entry.

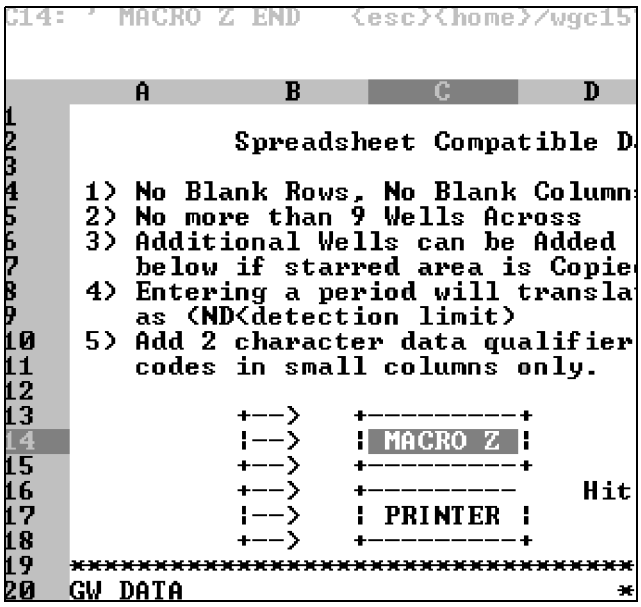


Figure 3-81. Highlight the MACRO Z cell and Range Name it \Z.

12. Edit you entries according to the rules shown at the top of the spreadsheet file. The spreadsheet rules are listed below.

No blank rows, no blank columns.
No more than 9 wells across.
Additional wells can be added below if starred area is copied to the bottom of the spreadsheet.
(The first cell in the last row must be filled with <>, to mark the end of the template.)*
Entering a period will translate as "ND<detection limit" (Note: ' in Lotus)
You may delete rows or paired (well ad qualifier) columns. Starred rows may not be deleted.
You may not change column widths.
All added wells or parameters must already be present in **GRITS/STAT**, prior to reading the template.
Data may be added or changed but not deleted within a template.
A blank "cell" will not be added to your stored data.
Units may not be changed.

13. After completing your adds and edits hold the **<Alt>** and **<P>** keys down at the same time. Lotus ® 1-2-3 will prompt: "Enter name of text file:". Type the full MS DOS filename of the import file to be created. You should save the file to the

GRITS500\GRITDATA\ directory. Files with the .PRN extension, stored in this directory will then be displayed when the Read GW Data Template is executed. Note that, you cannot create a print file with the same name as the print file that was imported.

Example: My Result Template is named D:\ABCLAND\XY011596.PRN. Therefore, the file that I create when I press <**Alt**> <**P**> ***cannot*** be named D:\ABCLAND\X011596.PRN. So I type:

<D:\GRITS500\GRITDATA\XY0115IM.PRN> <Enter>

If you are using another spreadsheet program other than Lotus, the Alt P macro may not work. (This rule is the result of the inclusion of the P macro that creates the **GRITS/STAT**-readable file. If you don't use the macro, this rule does not apply.)

14. Exit Lotus® 1-2-3 by typing the following sequence </> <**Q**>.

3.5.2.2 READ A RESULTS TEMPLATE

The new template file created with the steps above can be read by **GRITS/STAT 5.0** by using the Read a Template option of the GW DATA ENTRY MENU. **GRITS Database** will inform you of any errors in the existing template. Use the template to add or change data if no errors exist. To import adds and edits made in a Result Template follow the steps below.

1. Get to the GW DATA ENTRY MENU (see section 3.5).

2. Press <**R**> or use the up and down arrow keys to highlight the Read a Results Template option and press <**Enter**>. The READ GW DATA TEMPLATE appears on your screen as shown in Figure 3-82.

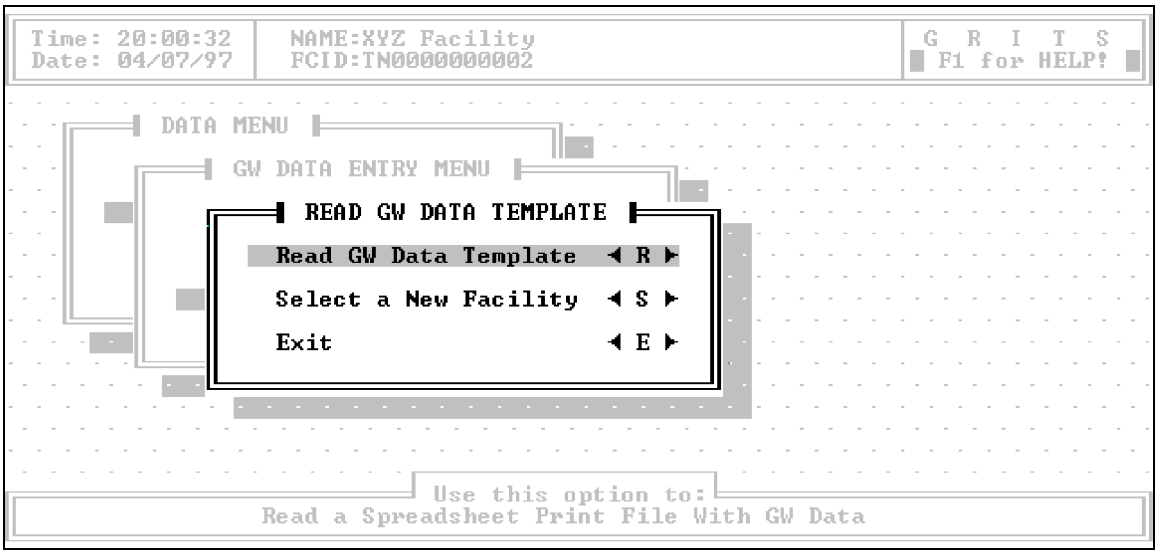


Figure 3-82. The READ GW DATA TEMPLATE menu.

3. Press <**R**> or use the up and down arrow keys to highlight the Read GW Data Template option and press <**Enter**>. A prompt "Enter File Name" appears at the bottom of your screen. Enter the full MS DOS filename of the import created with the <**Alt**> <**P**> macro in step 13 of section 3.5.2.1.

> ***Example:*** The name of the import file created in Lotus® 1-2-3 with the <**Alt**> <**P**> macro was D:\GRITS500\GRITDATA\XY0115IM.PRN. So I type:
>
> **<D:\GRITS500\GRITDATA\XY0115IM.PRN> <Enter>**

4. Template Review Dialogs appear on screen and inform you of any problems with your import file as shown in Figure 3-83.

   If anything shows up unmatched you should correct the problem in Lotus® 1-2-3 and recreate the import file with the <**Alt**> <**P**> macro.

   If everything matches press <**Enter**> to proceed with the import. When complete the footer message will report the number of adds and changes and you will return to the READ GW DATA TEMPLATE menu.

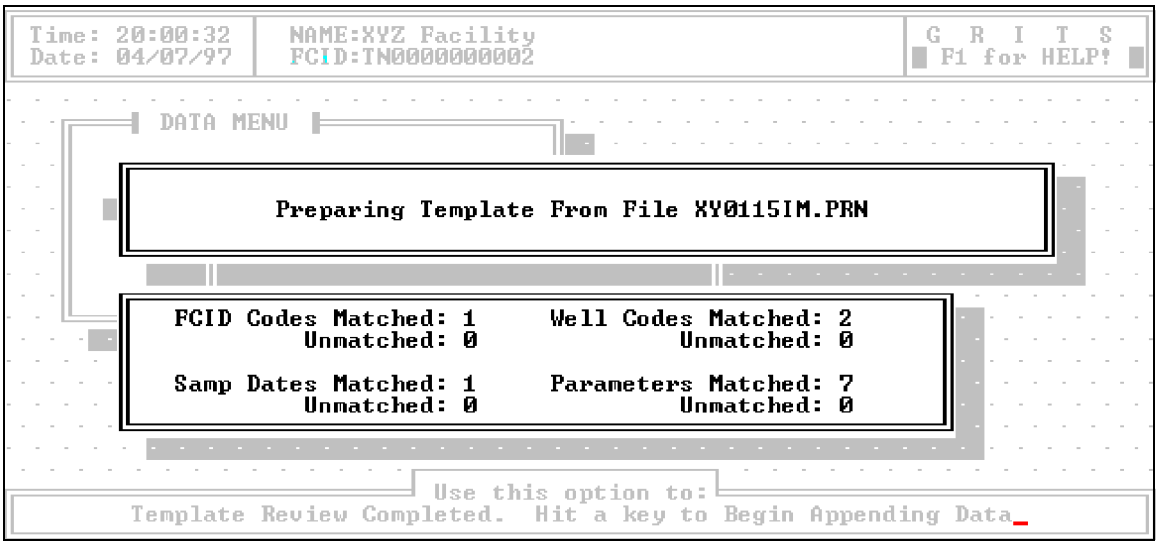


Figure 3-83. The Template Review Dialog. In this case everything matches so it is OK to proceed with the import.